
CHAPTER 4

ENVIRONMENTAL AND SOCIOECONOMIC CONSEQUENCES OVERVIEW

4.1	INTRODUCTION	4-1
4.2	LAND USE/RECREATION	4-4
4.3.	VISUAL RESOURCES	4-11
4.4	AIRSPACE	4-17
4.5	AIR QUALITY	4-20
4.6	NOISE	4-36
4.7	TRAFFIC	4-44
4.8	WATER RESOURCES	4-51
4.9	GEOLOGY, SOILS, AND SEISMICITY	4-60
4.10.	BIOLOGICAL RESOURCES	4-67
4.11	CULTURAL RESOURCES	4-76
4.12	HUMAN HEALTH & SAFETY HAZARDS	4-83
4.13	SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE	4-97
4.14	PUBLIC SERVICES AND UTILITIES	4-106

CHAPTER 4

ENVIRONMENTAL AND SOCIOECONOMIC CONSEQUENCES OVERVIEW

4.1 INTRODUCTION

This chapter presents a summary of the overall potential environmental impacts of the Proposed Action when all proposed SBCT projects are considered together. Chapters 5 through 8 address the individual impacts associated with each Army installation. Cumulative impacts and mitigation are presented in Chapter 9.

The alternatives, as discussed in Chapter 2, are Proposed Action, Reduced Land Acquisition and No Action. No Action may best be described as the continuation of existing training activities without the transformation of the 2nd Brigade to an SBCT, as described in detail in Chapter 2 in the Legacy Training Baseline.

The Proposed Action, the transformation of the 2nd Brigade to an SBCT, would assume the continuation of existing training activities in Hawai'i along with the fielding of the Stryker system, new construction, additional land acquisition and easements, and new SBCT-specific training activities. Specific changes are summarized below:

- Personnel Strength – increased to 3,818 Officers and Enlisted, a net increase of 810;
- Vehicles – increased to 1,005 emission-producing vehicles, a net increase of 346 including 296 Strykers;
- Weapons – Current inventory plus use of 105mm MGS on the Stryker, use of the 120mm mortar, and increase use from twelve to eighteen 155mm howitzers (the current inventory includes eighteen 105mm howitzers that will be changed to eighteen 155mm howitzers);
- Land Acquisition – SRAA and WPAA;
- Road Easements and Improvements – Dillingham Trail, Helemanō Trail, and PTA Trail; and

- New Construction – 7 new ranges, 2 airfield upgrades, 13 support facilities, and 25 communication antennas.

Each section in this chapter includes the methodology used for impact analysis and a discussion of factors used to determine the significance of direct and indirect impacts (40 CFR 1508.8) and proposed mitigation, as appropriate. Direct impacts are those that are caused by the Proposed Action and occur at the same time and place. Indirect impacts are those caused by the Proposed Action and that occur later in time or are farther removed in distance from the Proposed Action.

To determine whether an impact is significant, CEQ regulations also require the consideration of context and intensity of potential impacts (40 CFR 1508.27). Context normally refers to the setting, whether local or regional, and intensity in regards to the severity of the impact. Also, an EIS should include a discussion of the possible conflicts between the proposed action and the objectives of federal, regional, state and local land use plans and policies for the area concerned (40 CFR 1502.16 C).

Impacts are defined in the following categories:

- Significant
- Significant but mitigable to less than significant
- Less than significant
- No impact
- Beneficial impact

Impacts in the top two categories (significant or significant but mitigable to less than significant) are assigned an impact number in the text (e.g. *Impact 1: Modification of the existing view*) with a corresponding numbered mitigation. Impacts in the next two categories (less than significant or no impact) are not assigned an impact number (e.g. *Consistency with visual resource policies*). Beneficial impacts are also described when applicable.

Summary tables provide an overview of impacts by resource and by alternative. These “dot” tables show the highest level of impact for each resource by issue area. Text supporting these conclusions is presented and mitigations are listed for all significant impacts, where mitigation is available. There may be both adverse and beneficial impacts within a single resource category; for instance, a project could interfere with a pre-existing land use such as recreation (an adverse impact) while expanding public access to different recreational resources (a beneficial impact). Where there are both adverse and beneficial impacts, both are listed on the tables and in the text.

Mitigation is divided into two categories:

- Regulatory and administrative mitigation, which is required in compliance with federal environmental laws and regulations that are SOPs or BMPs, or that are part of an on-going program; and
- Additional mitigation, which is proposed by the Army, other agencies, or the public and which may be implemented, depending on funding availability. The Army has listed these additional mitigations to provide the public and regulatory agencies with information on all possible mitigations, and to request input on which mitigations the public would like to see implemented. The Army has identified in the Final EIS which of these mitigations are likely and unlikely to be implemented. The final determination on mitigation commitments will be outlined in the record of decision.

4.1.1 Cumulative Impacts Summary

CEQ regulations implementing NEPA require that the cumulative impacts of a proposed action be assessed (40 CFR Parts 1500-1508). Army regulation 200-2 (32 CFR 651.51) also requires that cumulative actions, when viewed with other proposed actions that have cumulatively significant impacts, be discussed in the same impact statement. Direct and cumulative impacts should be viewed together to determine the full impacts from each alternative identified in this EIS. Cumulative impacts are discussed separately in Chapter 9 of this EIS, because different analytical methods are used for determining significance and because the cumulative ROI is often larger than that for direct and indirect impacts (CEQ 1997). Also, this EIS may identify significant direct impacts for certain resources while finding that there are no significant cumulative impacts for the same resource. This difference is normally due to the different geographical context needed for measuring direct and cumulative impacts.

This EIS uses a variety of methods, depending on the resource area, to determine cumulative socioeconomic and environmental effects. Methods for gathering and assessing data regarding cumulative impacts include: interviews, use of checklists, trends analysis, and forecasting. In general, past, present, and future foreseeable projects are assessed by resource area. These projects, which are listed in Tables 9-1 and 9-2, are sponsored by the US Army, other federal and state agencies and private entities and include 34 projects on O‘ahu and 9 projects on Hawai‘i.

Cumulative impacts from the Proposed Action and the RLA Alternative, and No Action would occur in all resource areas as described in Chapter 9 of this EIS. Significant cumulative impacts would occur in the following resource areas: land use, and water, biological, cultural and socioeconomic resources.